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Foreman et al.

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[54] **REAL-TIME DATA ACQUISITION**

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[52] **U.S. Cl.** **702/188**; 702/183; 370/415; 370/498

[58] **Field of Search** 702/188, 183; 370/498, 415

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[57] **ABSTRACT**

A real-time data acquisition system for a remote, unmanned underwater vehicle includes an array of sensors within the vehicle which gather data from the environment surrounding the vehicle. The sensor data is digitized and stored in an imbedded computer on the unmanned vehicle. To display the data, the imbedded computer transfers the digital data over a local area network connection to a second computer aboard a mother ship. The second computer converts the digital data back to analog data for display. The data can also be analyzed and processed depending on test requirements. To test the unmanned vehicle performance, the vehicle can be operated adjacent the mother ship with the local area network connection in place. In this mode, the imbedded computer transfers the digital data to the second computer as the data is being stored in the imbedded computer.

12 Claims, 2 Drawing Sheets